Form P10- (REV. 8-83)			ENT OF COMMERCE RADEMARK OFFICE	ATTY. DOCKET NO. 015685.PC	032	SERIAL NO.	437,764
DINFORM	MATION DISCLO	SURE C	ITATION	APPLICANT	Louis (
24- (n	Use several sheets i	f necessar	y)	FILING DATE 11/09/9	9	GROUP	2739
4001 ST		U.S.	PATENT DO	CUMENTS			
HEAMINER INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE
SBI	3,704,465	11/28/72	Masak et a		-		RECEI
	3,774,209	11/20/73	Fleming et	al.			
	3,798,645	03/19/74	Baurle et a	•			AUG 2 0
	3,852,749	12/03/74	Kohler				echnology Co
	3,946,385	03/23/76	Ewen				
	4,005,379	01/25/77	Lerner				
	4,035,746	07/12/77	Covington	Jr.			
	4,085,319	04/18/78	Deitz et al.				
	4,128,740	12/05/78	Graziano			Many Control to Supply Street Supply Control	
	4,263,568	04/21/81	Nemit				
MI	4,316,191	02/16/82	Sawatari et	al.			
		FOREIG	N PATENT C	OCUMENTS			•
	DOCUMENT NUMBER	DATE	CC	DUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
1/2/	2 237 706 A	5/8/91	United King	jdom			
W/ Ca	2 295 524 A	5/29/96	United King	jdom			
M	2 313 261 A	11/19/97	United King	gdom			
	OTHER DOCUME	ew Adapt	ive MAC Lay	er Protocol for \	Nireless .	ATM Netw	orks in
	rsh Fading and Into						itarget
Vo	onstant Modulus Be ol. 2, pp. 1-12.	eamformer	r", 10/7/89 Pr	oc. IEEE Military	/ Commu	inications	Conference
at 80	schied et al., "An Al High Data Rates", 4-813.						
EXAMINER	Joe Logsa	In	DA	TE CONSIDERE	900		

rorm PTO- REV. 8-83			ENT OF COMMERCE RADEMARK OFFICE	ATTY. DOCKET NO. 015685.P03		SERIAL NO.	437,76	4
INFORM	MATION DISCLO	SURE CI	ITATION	APPLICANT	Louis C	. Yun		
	VIII CHI DIOCEO	OUNE O	117(110)(FILING DATE	<u>-</u>	GROUP		
11/	(Use several sheets i	f necessary	y)	11/09/99		2	739	
07 55		U.S.	PATENT DO	CUMENTS				
EXAMINER OF THE PROPERTY OF TH	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS		3 DATE OPRIATE
33/	4,375,622	03/01/83	Hollingswo	rth et al.	<i>م</i>			
	4,434,505	02/28/84	Gutleber			RE	CEI	VEC
	4,475,010	10/02/84	Huensch et	al.		AI	JG 2 (200
	4,626,859	12/02/86	Stansfield				ology C	
	4,639,732	01/27/87	Acoraci et a	al.				
	4,639,914	01/27/87	Winters		_			
	4,658,096	04/14/87	West, Jr. et	al.				
	4,737,794	04/12/88	Jones					
	4,737,975	04/12/88	Shafer					
	4,742,356	05/03/88	Kuipers					
QUIL	4,750,147	06/07/88	Roy, III et a	l.	J			
J og,		FOREIG	N PATENT D	OCUMENTS				
1	DOCUMENT NUMBER	DATE	cc	DUNTRY	CLASS	SUBCLASS	TRANSI	ATION
	0 639 035 A1	2/15/95	EPO					
1	0 713 261 A1	5/22/96	EPO					
M	0 777 400 A2	6/4/97	EPO					
J.V	OTHER DOCUME	NTS (Inclu	ding Author,	Title, Date, Pertine	nt Pages,	Etc.)		
	ranks, "Synchroniza ommunications Sat					Digital		
	riedlander, "Direction onference on Acous							
	riedlander et al., "Di 991, IEEE Publicatio			leband Signals U	sing an l	nterpolat	ed Arr	ay",
AMINER	Jap 1 ox	In .	DA	TE CONSIDERED	1/14			

Form PTO- (REV. 8-83)			ENT OF COMMERCE RADEMARK OFFICE	ATTY. DOCKET NO. 015685.P03	32	SERIAL NO.	437,764
ÀWESS.				APPLICANT			
de MALOKI	MATION DISCLO	SURE C	ITATION		Louis C		
1055 (Use several sheets i	f necessar	v)	11/09/99		GROUP 2	739
	· · ·		PATENT DO	L CUMENTS	i		
*EXAMINER		<u> </u>			1	1	T ==
INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DAT IF APPROPRI
Of S	4,775,997	10/04/88	West Jr. et	al.	_ =		
	4,796,291	01/03/89	Makino			RE	CEIVE
	4,827,395	05/02/89	Anders et a	al.	_	ALIC	2 0 200
	4,829,554	05/09/89	Barnes et a	ıl.			
	4,837,800	06/06/89	Freeburg e	t al.		 Technolo	gy Center
	4,855,748	08/08/89	Brandao et	al.			
	4,910,794	03/20/90	Mahany				
\	4,922,517	05/01/90	West, Jr. et	al.			
	4,926,186	05/15/90	Kelly et al.				
	4,940,963	07/10/90	Gutman et	al.	_		
() R	4,947,452	08/07/90	Hattori et a	l.			
0		FOREIG	N PATENT C	OCUMENTS			
	DOCUMENT NUMBER	DATE	C	DUNTRY	CLASS	SUBCLASS	TRANSLATIO
MI	95/34103	12/14/95	wo				
	98/01963	1/15/98	wo				
OB/	98/17037	4/23/98	wo				
910	OTHER DOCUME	NTS (Inclu	ding Author,	Title, Date, Pertine	nt Pages	, Etc.)	
	anz et al., "A Data-D ansactions on Com						, IEEE
	is et al., "A Digital C sitmation", IEEE Tra						
A A	ishnamurthy et al., daptive Array Anten				s For Us	e With Sn	nart
EXAMINER	1		154	TE CONSIDERED			

APPLICANT Louis C. Yun FILING DATE 11/09/99 2739	Form PTO-144 (REV. 8-83)	19		NT OF COMMERCE RADEMARK OFFICE	ATTY. DOCKET NO. 015685.P0;	32	SERIAL NO.	437,76	1
Louis C. Yun						,,,			•
U.S. PATENT DOCUMENTS	INFORMA	TION DISCLO	SURE CI	TATION		Louis C	. Yun		
U.S. PATENT DOCUMENTS DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FALING DATE FAPROPRIVED	<i>"</i> 1	a savaral shaats i	f noossan	d				720	_
DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE PAPROPRI/		e severai sileets i		<u> </u>				.739	
4,955,082 09/04/90 Hattori et al. 4,965,732 10/23/90 Roy, III et al. 4,965,849 10/23/90 Kunihiro AUG 2 0 2001 4,965,850 10/23/90 Schloemer 4,972,151 11/20/90 Rosen 4,989,204 01/29/91 Shimizu et al. 5,041,833 08/20/91 Weinberg 5,052,799 10/01/91 Sasser et al. 5,093,924 03/03/92 Toshiyuki et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATIO YES IN 198/17071 4/23/98 WO 98/33346 7/30/98 WO	· 4/		1	TATENT BO		1	 		
4,965,732 10/23/90 Roy, III et al. 4,965,849 10/23/90 Kunihiro AUG 2 0 2001 4,965,850 10/23/90 Schloemer 4,972,151 11/20/90 Rosen 4,989,204 01/29/91 Shimizu et al. 5,041,833 08/20/91 Weinberg 5,052,799 10/01/91 Sasser et al. 5,093,924 03/03/92 Toshiyuki et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NUMBER PRICE NO NUMBER NUMBER NO NUMBER NUMBER NO NUMBER NUMBER NO NUMBER NUMB	NOINITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS		
4,965,849 10/23/90 Kunihiro AUG 2 0 2001 4,965,850 10/23/90 Schloemer Feehnology Center 2 4,972,151 11/20/90 Rosen 4,989,204 01/29/91 Shimizu et al. 5,041,833 08/20/91 Weinberg 5,052,799 10/01/91 Sasser et al. 5,093,924 03/03/92 Toshiyuki et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATIO YES NO 98/17071 4/23/98 WO 98/28864 7/2/98 WO 98/33346 7/30/98 WO	ORK	4,955,082	09/04/90	Hattori et a	l.				
4,965,850 10/23/90 Schloemer Feehnology Center 2 4,972,151 11/20/90 Rosen 4,989,204 01/29/91 Shimizu et al. 5,041,833 08/20/91 Weinberg 5,052,799 10/01/91 Sasser et al. 5,093,924 03/03/92 Toshiyuki et al. 5,109,535 04/28/92 Kume et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NOT SUBCLASS OF TRANSLATION		4,965,732	10/23/90	Roy, III et a	I.		REC	EIVI	ΞD
4,972,151 11/20/90 Rosen 4,989,204 01/29/91 Shimizu et al. 5,041,833 08/20/91 Weinberg 5,052,799 10/01/91 Sasser et al. 5,093,924 03/03/92 Toshiyuki et al. 5,109,535 04/28/92 Kume et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NOT YES NOT SUBCLASS TRANSLATION YES NOT		4,965,849	10/23/90	Kunihiro			AUG	202	001
4,989,204 01/29/91 Shimizu et al. 5,041,833 08/20/91 Weinberg 5,052,799 10/01/91 Sasser et al. 5,093,924 03/03/92 Toshiyuki et al. 5,109,535 04/28/92 Kume et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO. 98/17071 4/23/98 WO 98/28864 7/2/98 WO 98/33346 7/30/98 WO		4,965,850	10/23/90	Schloemer			Technolog	y Cent	er 20
5,041,833 08/20/91 Weinberg 5,052,799 10/01/91 Sasser et al. 5,093,924 03/03/92 Toshiyuki et al. 5,109,535 04/28/92 Kume et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NOT SUBCLASS TRANSLATION YES N		4,972,151	11/20/90	Rosen					
5,052,799 10/01/91 Sasser et al. 5,093,924 03/03/92 Toshiyuki et al. 5,109,535 04/28/92 Kume et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO. 98/17071 4/23/98 WO 98/28864 7/2/98 WO 98/33346 7/30/98 WO		4,989,204	01/29/91	Shimizu et	al.	_			
5,093,924 03/03/92 Toshiyuki et al. 5,109,535 04/28/92 Kume et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NOT SUBCLASS OF TRANSLATION YES NOT TRANSLA		5,041,833	08/20/91	Weinberg		_			
5,109,535 04/28/92 Kume et al. FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NOT SUBCLASS T		5,052,799	10/01/91	Sasser et a	l.				
FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NOT		5,093,924	03/03/92	Toshiyuki d	et al.	_		,	
FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NOT						_		-	
DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NOT TR	(h)	5,109,535	04/28/92	Kume et al.		_ <			
98/17071 4/23/98 WO 98/28864 7/2/98 WO 98/33346 7/30/98 WO			FOREIG	N PATENT D	OCUMENTS				
98/28864 7/2/98 WO 98/33346 7/30/98 WO	. 1	DOCUMENT NUMBER	DATE	C	DUNTRY	CLASS	SUBCLASS		ATION
98/33346 7/30/98 WO	All I	98/17071	4/23/98	wo					
		98/28864	7/2/98	wo					
OTHER DOCUMENTS (Including Author Title Date Pertinent Pages Etc.)		98/33346	7/30/98	wo					
	}///	OTHER DOCUME	NTS (Inclu	dina Author	Title Date Pertine	nt Pages	Etc.)		
								", 1994	1
Lee et al., "Decision Directed Carrier Recovery - Chapter 16: Carrier Recovery", 1994 Digital Communications, 2nd Edition, Kluwer Academic Pub., pp. 725-736.			,	,		, p.p			
Lee et al., "Decision Directed Carrier Recovery - Chapter 16: Carrier Recovery", 1994 Digital Communications, 2nd Edition, Kluwer Academic Pub., pp. 725-736.								", 199	4
Digital Communications, 2nd Edition, Kluwer Academic Pub., pp. 725-736. Lee et al., " Decision Directed Carrier Recovery - Chapter 17: Timing Recovery", 1994	Digit	ai Communicatio	ons, 2na E	aition, Kluw	er Academic Pui	o., pp. 73	37-764.		
Digital Communications, 2nd Edition, Kluwer Academic Pub., pp. 725-736.	Lune	dell et al., "Applic	cations of	the Constan	t Modulus Adapt	ive Bean	nformer to	Cons	tant
Digital Communications, 2nd Edition, Kluwer Academic Pub., pp. 725-736. Lee et al., "Decision Directed Carrier Recovery - Chapter 17: Timing Recovery", 1994 Digital Communications, 2nd Edition, Kluwer Academic Pub., pp. 737-764.	A and	Non-Constant M	odulus Sig	nals", Proce	edings, 1998 Asi	lomar C			
Digital Communications, 2nd Edition, Kluwer Academic Pub., pp. 725-736. Lee et al., "Decision Directed Carrier Recovery - Chapter 17: Timing Recovery", 1994 Digital Communications, 2nd Edition, Kluwer Academic Pub., pp. 737-764. Lundell et al., "Applications of the Constant Modulus Adaptive Beamformer to Constant and Non-Constant Modulus Signals", Proceedings, 1998 Asilomar Conference on	EXAMINER		//						
Digital Communications, 2nd Edition, Kluwer Academic Pub., pp. 725-736. Lee et al., "Decision Directed Carrier Recovery - Chapter 17: Timing Recovery", 1994 Digital Communications, 2nd Edition, Kluwer Academic Pub., pp. 737-764. Lundell et al., "Applications of the Constant Modulus Adaptive Beamformer to Constant and Non-Constant Modulus Signals", Proceedings, 1998 Asilomar Conference on Signals, Systems, and Computers (ACSSC-1988), pp. 432-436.	_	1.0.1		B			/	_	

Form PTO-14 (REV. 8-83)	449		INT OF COMMERCE RADEMARK OFFICE	ATTY. DOCKET NO. 015685.P03	32	SERIAL NO. 09/ 4	437,764	,
INFORM	ATION DISCLO	SURE CI	TATION	APPLICANT	Louis C	. Yun		
(1)	Ise several sheets it	f necessar	v)	FILING DATE 11/09/99		GROUP 2	2739	
071 S			PATENT DO	CUMENTS				
EXAMINER INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING IF APPRO	
all	5,124,697	06/23/92	Moore		-			
	5,142,253	08/25/92	Mallavarpu	et al.		RF	CEI'	VΕ
	5,159,593	10/27/92	D'Amico et	al.				
	5,255,210	10/19/93	Gardner et	al.			620	
	5,260,968	11/09/93	Gardner et	al.		Techno	logy C€	antei
	5,262,789	11/16/93	Silverstein					
	5,274,844	12/28/93	Harrison e	al.				-
	5,283,540	02/01/94	Myer					
	5,299,148	03/29/94	Gardner et	al.				
	5,335,249	08/02/94	Krueger et	al.	_			
(no)	5,345,596	09/06/94	Buchenho	ner et al.				
11/4		FOREIG	N PATENT I	OCUMENTS				
	DOCUMENT NUMBER	DATE	С	OUNTRY	CLASS	SUBCLASS	TRANSL YES	ATION NO
Mel.	7-170548	4/7/95	Japan					Х
	OTHER DOCUME	NTS (Inclu	ding Author,	Title, Date, Pertine	ent Pages	s, Etc.)		
Bra	hamed et al., "Dire adley Dept. of Elec ction 3.8, pp. 64-71	trical Eng						
Ap	nder Veen et al., "A plications in Mobi gorithms, Architec	le Commu	nications", S	SPIE 1994 "Advar	nced Sig	nal Proces		
<i>∩\</i> /// /// /// /// /// /// /// /// // // /	lwar et al., "Recurs ceived at an Anter plications Confere	ına Array"						als
EXAMINER	1 11 10	//_	DA	TE CONSIDERE	1/21/			

Form PTO (REV. 8-83			ENT OF COMMERCE RADEMARK OFFICE	ATTY. DOCKET NO. 015685.P03	32	SERIAL NO. 09/	437,764	1
& INEOD	MATION DISCLO	SUIDE C	ITATION	APPLICANT	Louis C	. Yun		
1	MATION DISCLO	JOURE C	HAHON	FILING DATE	1	GROUP		
JC55	(Use several sheets	if necessar	y)	11/09/99		2	2739	
		U.S.	PATENT DO	CUMENTS				-
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING IF APPRO	
CAL	5,361,303	11/01/94	Eatwell		-			
0	5,367,559	11/22/94	Kay et al.				-051	VE
	5,379,320	01/03/95	Fernandes	et al.		H	LUL	- 200
\	5,387,915	02/07/95	Moussa et	al.			UG 2	
	5,423,072	06/06/95	lwashita et	al.	_	Tech	ology (Jente i
	5,430,760	07/04/95	Dent	· · · · · · · · · · · · · · · · · · ·	-			
	5,440,281	08/08/95	Wey et al.					
	5,448,621	09/05/95	Knudsen					
	5,457,812	10/10/95	Siira et al.					
	5,465,399	11/07/95	Oberholtze	r et al.				
MI	5,471,647	11/28/95	Gerlach et	al.				
100		FOREIG	ON PATENT D	OCUMENTS				
	DOCUMENT NUMBER	DATE	C	DUNTRY	CLASS	SUBCLASS	TRANSL	
							YES	NO
	OTHER DOCUM	L ENTS (Inclu	l Idina Author	Title, Date, Pertine	nt Pages	L. Ftc.)	<u> </u>	·
	5 Z. (5000 W)	(mora		, 2010, 1 010110	ugos	, =:0.,		
	apadias et al., "A S						ns", 19	96,
	Proceedings, IEEE 4	6th Vehicu	ilar Technolo	gy Conference, p	р. 86-90	-		
Try								
, , ,	alwar et al., "Blind		•		_	•	•	
	Antenna Array", 199 Computers, Vol. 1, p			Conference on Si	gnals, S	ystems, a	ınd	
		<u> </u>						
<i>` \/h //</i> ∫i∙	Rashid-Farrokhi et a n Wireless Network 555-559.							nent
			I DA	TE CONSIDERED				
EXAMINE	·	_ // ~	, I''	IL GONOIDENED	$\Im K$	1/00		

Form PTO-142 (REV. 8-83)	19		ENT OF COMMERCE RADEMARK OFFICE	ATTY. DOCKET NO. 015685.P0	32	SERIAL NO. 09/ 4	437,764	1
INFORMA	TION DISCLO	SURE CI	ITATION	APPLICANT	Louis C	. Yun		
				FILING DATE		GROUP		
(Us	e several sheets			11/09/99			2739 ———	
4		U.S.	PATENT DO	CUMENTS				
TERÁMINER OT INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING IF APPR	DATE OPRIAT
SUL	5,475,864	12/12/95	Hamabe		<u> </u>			
7	5,475,868	12/12/95	Duque-Ant	on et al.				
	5,497,505	03/05/96	Koohgoli e	t al.				
	5,515,378	05/07/96	Roy, III et a	l.			CEI	
	5,530,449	06/25/96	Wachs et a	l.		_ <u>-</u> }	G 2 0	
	5,530,917	06/25/96	Andersson	et al.		Techno	ogy Ce	enter
	5,532,706	07/02/96	Reinhardt	et al.				
	5,537,438	06/16/96	Mourot et a	ıl.	_			
	5,543,801	08/06/96	Shawyer		_			
	5,546,090	08/13/96	Roy, III et a	I.	_			
(PB) A	5,548,813	08/20/96	Charas et a	il.	_			
1100	37.00 38.00	FOREIG	ON PATENT D	OCUMENTS				
·.	DOCUMENT NUMBER	DATE	С	OUNTRY	CLASS	SUBCLASS	TRANSL	
							YES	NO
	·							
	OTHER DOCUM	ENTS (Inclu	ıdina Author	Title, Date, Pertine	ent Pages	s Ftc)	<u>. </u>	
	<u></u>							
//		•		ning for Cellular			/stems	",
	ierende dil illiof	manun 3CF	CIICES AIIU S	ystems, CISS-97	, JI 177 <i>1</i> ,	→ µayes.		
Rael	nid-Farrokhi et a	I "Downli	nk and Unlin	k Capacity Enha	ncement	in Power	Contro	oller
Celli	ular Systems", P	•	•	47th Vehicular T				
5/97	, pp. 647-651.							
/ I V/ /V	nid-Farrokhi et a Imunications Le	•		ntrol and Base S 7, pp. 102-104.	Station A	ssignmen	t", IEEI	E
EXAMINER	JoeLogs	don	DA	TE CONSIDEREI	Dok I	65		

Form PTO-14 (REV. 8-83)	49	U.S. DEPARTME PATENT AND TR	NT OF COMMERCE RADEMARK OFFICE	ATTY. DOCKET NO. 015685.P03		SERIAL NO.	or 437,764	
her-	TION DICCLO	CUDE CI	ITATION	APPLICANT	Louis C	. Yun	<u></u>	
' '	TION DISCLO			FILING DATE		GROUP		
1 & 2001 S	se several sheets i			11/09/99			739	
25		U.S.	PATENT DO	CUMENTS				
1 6 2001 St (US	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING IF APPRO	
Off	5,553,074	09/03/96	Acampora		_			
	5,555,445	09/10/96	Booth					
	5,557,657	09/17/96	Barnett			RE	PEIV	ED
	5,565,873	10/15/96	Dean			AUG	202	001
	5,566,209	10/15/96	Forssen et	al.		Technolo		
	5,576,717	11/19/96	Searle et a					
	5,592,490	01/07/97	Barratt et a	l.				
	5,596,625	01/21/97	LeBlanc					
	5,603,082	02/11/97	Hamabe					
	5,603,089	02/11/97	Searle et a					
W	5,606,729	02/25/97	D'Amico et	al.				
		FOREIG	N PATENT [OCUMENTS			·	
	DOCUMENT NUMBER	DATE	С	OUNTRY	CLASS	SUBCLASS	TRANSL YES	ATION NO
			1					
				# · · · ·				
	OTHER DOCUME	ENTS (Inclu	l uding Author,	Title, Date, Pertine	nt Pages	s, Etc.)		
Nets Con	works", Conferer nputers, Vol. 1, 1	nce Record 1/97, pp. 62 ut Multiplic	l 31st Asilon 20-624. cation of Wir	and Equalization of the conference of the confer	n Signals	s, System	s, and	
Sigi	dlehurst et al., "A nal Processing, V	•	12, 12/95, p		•	EE Transa	actions	on
EXAMINER	Jod Log:	sden	DA	TE CONSIDERED	2/5/	62		
*EXAMINER: Ini	tial if citation consider	ed, whether or	r not citation is in	conformance with MP	EP 609: D	raw line throu	ıah	

,

		REV. 8-83) U.S. DEPARTMENT OF COMMERC PATENT AND TRADEMARK OFFIC				ATTY. DOCKET NO. 015685.P03	32	SERIAL NO.	4		
V		VEORM	ATION DISCLO	ISURE C	ΙΤΔΤΙΩΝ	APPLICANT	Louis C	C. Yun			
OID			se several sheets			FILING DATE 11/09/99		GROUP	 2739		
AUG 1 E 200,	105				PATENT DO						
\$ 400	5 /	AMINER		0.75	1				Ellin	G DATE	
PADEMARK OFF		IITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	IF APPR	ROPRIATE	
	9		5,615,409	03/25/97	Forssen et	al.	-				
		9	5,621,752	04/15/97	Antonio et	al.	_				
			5,625,885	04/29/97	Nakazawa (et al.		F	RECI	EIVE	D
			5,638,375	06/10/97	Dettro et al					2 0 200	
			5,649,287	07/15/97	Forssen et	al.				- 1	
			5,673,291	09/30/97	Dent			leci	nology	y Cente	2000
			5,675,581	10/7/97	Soliman				<u> </u>		
			5,678,188	10/14/97	Hisamura						
			5,684,836	11/04/97	Nagayasu e	et al.					
			5,689,219	11/18/97	Piirainen	-					
•		R/	5,689,502	11/18/97	Scott						
	de	V		FOREIG	N PATENT D	OCUMENTS			***		
			DOCUMENT NUMBER	DATE	co	DUNTRY	CLASS	SUBCLASS	TRANSI YEŞ	LATION	
										\Box	
			· · · · · · · · · · · · · · · · · · ·								
		<u>.</u>	OTHER DOCUME	NTS (Inclu	dina Author	Title Date Pertine	nt Pages	s Etc.)			
		^					_	•			
	S	a H	ing et al., "Perforr arsh Fading Envir	ronment",	1991, GLOBI	Iling Strategy for ECOM 1991, pp. 1	Broadb 141-114	oand Wirel 6.	ess LA	Ns in	
		Juss	98/25364, PCT Sea	arch Repoi	rt, 05/11/99.						
	V										
	EX	AMINER	JoeLogs	den	DA	TE CONSIDERED	5/51	105			•
	*EX/	AMINER: In	itial if citation considere	ed, whether or onsidered. Inc	not citation is in clude copy of this	conformance with MPI form with next commu	EP 609; D	raw line throu o applicant.	ıgh		

Sheet 9 of 13

	IATION DISCLO	SURE C	ITATION		Louis C			
E 20 (1)	Jse several sheets	if necessary	y)	FILING DATE 11/09/99		GROUP 2	739	
101 55		U.S.	PATENT DO	CUMENTS				
EXAMINER O INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING IF APPRO	
MA	5,694,416	12/02/97	Johnson		1			•
	5,697,066	12/09/97	Acampora					
	5,726,978	03/10/98	Frodigh et	al.			FCF	1\/
	5,732,076	03/24/98	Ketseoglou	ı et al.		—		
	5,742,904	04/21/98	Pinder et a	l.	_		UG 2	
	5,745,858	04/28/98	Sato et al.			 Techi	lology (jent
	5,748,676	05/05/98	Mahany	·				
	5,752,165	05/12/98	Hokkanen					
	5,774,461	06/30/98	Hyden et a	l.				
	5,809,009	09/15/98	Matsuoka e	et al.				
	5,809,019	09/15/98	lchihara et	al.				
July 1		FOREIG	ON PATENT D	OCUMENTS	-1	· · · · · · · · · · · · · · · · · · ·		
	DOCUMENT NUMBER	DATE	С	OUNTRY	CLASS	SUBCLASS	TRANSL YES	ATION
		 		·				
					<u> </u>			
								-
			<u> </u>		<u></u>]	<u> </u>	<u> </u>
	OTHER DOCUM	ENTS (Inclu	ıding Author,	Title, Date, Pertine	ent Pages	s, Etc.)		
			<u> </u>				<u> </u>	
· · ·							·	

	(F			•	· · · · · · · · · · · · · · · · · · ·	5	Sheet11	of13
	Form PTO (REV. 8-83			ENT OF COMMERCE RADEMARK OFFICE	ATTY. DOCKET NO. 015685.P03	32	SERIAL NO. 09/4	137,764
POTE	EINFOR	MATION DISCLO	SURE C	ITATION	APPLICANT	Louis C	. Yun	
AUS 1 6 2	00 55 00 55	(Use several sheets	if necessan	v)	FILING DATE 11/09/99		GROUP 2	739
PADEMAR PADEMAR	्रा क			PATENT DO				
RADEMAR	*EXAMINER	·····	0.0.	T ATENT BO				
	INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	10/	5,818,918	10/06/98	Fujii		<u> </u>		
	4	5,819,182	10/06/98	Gardner et			REC	EIVED
		5,825,762	10/20/98	Kamin, Jr.	et al.			
	A	5,828,658	10/27/98	Ottersten e	t al.	-	AUG	
		5,845,212	12/01/98	Tanaka			echnolog	y Center 2600
		5,867,123	02/02/99	Geyh et al.				
		5,884,148	03/16/99	Bilgic et al.				
:		5,887,038	03/23/99	Golden		· <u> </u>		
		5,905,721	05/18/99	Liu et al.				
		5,909,470	06/01/99	Barratt et a	l.			
-		5,914,946	06/22/99	Avidor et al	!.			
	719		FOREIG	N PATENT D	OCUMENTS			
		DOCUMENT NUMBER	DATE	cc	DUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
								·
		OTHER DOCUME	NTS (Inclu	ding Author, T	Title, Date, Pertine	nt Pages	;, Etc.)	
							· · · · · · · · · · · · · · · · · · ·	
İ								
	- EVALUE -							
	EXAMINE	R VdeLog	Sdeh	DA	TE CONSIDERED	0/2	1/02	
	*EXAMINER: citation if not	Initial if citation considere in conformance and not co	ed, whether or onsidered. Inc	not citation is in lude copy of this	conformance with MPI form with next commu	EP 609; Dr unication to	aw line through	gh

Form PTO-144	19		ENT OF COMMERCE	ATTY. DOCKET NO.		Sheet12	of _	· · · · ·
(REV. 8-83)		PATENT AND T	RADEMARK OFFICE	015685.P0)32	09/4	137,76	4
√ INFORMA	TION DISCLO	SURE C	ITATION	APPLICANT	Louis C	. Yun		
				FILING DATE		GROUP		
ဂ္ဂ်) (Us)) မြှ	e several sheets			11/09/99	9	2	739	
<u>#</u>		U.S.	PATENT DO	CUMENTS				
ÉXÂMINER INITIAL	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING IF APPR	G DATE
M	5,930,243	07/27/99	Parish et al					
101	5,933,421	08/03/99	Alamouti e	t al.		RECE	IVE	<u>D</u>
	5,955,992	09/21/99	Shattil			AUG 2	n 200)1
	5,970,394	10/19/99	Arpee et al.	•		chnology		
	5,973,638	10/26/99	Robbins et	al.		echnology	Center	200
	5,999,826	12/07/99	Whinnett					
	6,005,854	12/21/99	Xu et al.		-			
	6,009,124	12/28/99	Smith et al.					
	6,018,317	01/25/00	Dogan et a					
	6,018,555	01/25/00	Mahany				,	
JRI	6,018,643	01/25/00	Golemon e	t al.				
// /		FOREIG	N PATENT D	OCUMENTS				
	DOCUMENT NUMBER	DATE	co	DUNTRY	CLASS	SUBCLASS	TRANSI YES	ATION
	·····						i	
	THE BOOK !	I	aliana Anthr	Till = D-1 = D = "				
(OTHER DOCUME	EN I S (INClu	aing Author,	ı ille, Date, Pertin	ent Pages	6, ⊏ [C.)		
	·		· · · · · · · · · · · · · · · · · · ·					
EXAMINER			<u>/ </u>	TE CONSIDERE	D /			
LYCHWINE	$1 \leq \lambda \leq I$	198do	ĮυA	TE CONSIDERE		1/03		

APPLICANT Louis C. Yun FILING DATE 11/109/99 273		Form PTO-1449 (REV. 8-83)			U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				SERIAL NO. 09/437,764		
1 6 2001 5 11/09/99 11/09/99 12/39 11/09/99	1	D JANE	ORM	ATION DISCLO	SURE CITATION		APPLICANT	. Yun			
U.S. PATENT DOCUMENTS DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS FILING DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATI YES TOUR NUMBER DATE TOUR NUMBER DATE TOUR NUMBER DATE TOUR NUMBER DATE	1 8	(Use several sheets			if necessary)						
6,023,203 02/08/00 Parish 6,061,553 05/09/00 Matsuoka et al. 6,064,865 05/16/00 Kuo et al. AUG 2 0 200 6,108,565 08/22/00 Scherzer Technology Center 6,154,661 11/28/00 Goldburg 6,185,412 02/06/01 Pentikainen et al. 6,192,256 2/20/01 Whinnett FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION TO TRANSLATION TO THE COUNTRY CLASS SUBCLASS TRANSLATION TO TRANSLATIO		U.S. F				PATENT DO	CUMENTS				
6,023,203 02/08/00 Parish 6,061,553 05/09/00 Matsuoka et al. 6,064,865 05/16/00 Kuo et al. AUG 2 0 200 6,108,565 08/22/00 Scherzer Fechnology Center 6,154,661 11/28/00 Goldburg 6,185,412 02/06/01 Pentikainen et al. 6,192,256 2/20/01 Whinnett FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATING TRANS	DFN	KÉXAMINE INITIAL	R	DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING IF APPR	DATE OPRIAT
6,064,865 05/16/00 Kuo et al. AUG 2 0 200 6,108,565 08/22/00 Scherzer Fechnology Center 6,154,661 11/28/00 Goldburg 6,185,412 02/06/01 Pentikainen et al. 6,192,256 2/20/01 Whinnett FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATIVES TO TRANSLATIVE TO TRAN		All		6,023,203	02/08/00	Parish					
G,108,565 08/22/00 Scherzer Technology Center		/ (6,061,55		05/09/00	Matsuoka e	et al.	-			
6,108,565 08/22/00 Scherzer [echnology Center				6,064,865	05/16/00	Kuo et al.	Kuo et al.		HEC	ΕΙVI	ΞD
6,154,661 11/28/00 Goldburg									AUG	2 0 2	001
6,185,412 02/06/01 Pentikainen et al.				6,108,565	08/22/00	Scherzer			Technolog	y Cente	er 26
6,185,412 02/06/01 Pentikainen et al.			_					_			
FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATIC YES I		\perp		6,154,661	11/28/00	Goldburg					
FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES IN	-	\perp		6,185,412	02/06/01	Pentikainer	ı et al.				
DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION OF THE PROPERTY OF THE	-	M		6,192,256	2/20/01	Whinnett					
DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION OF THE PROPERTY OF THE	ľ		_								
DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION OF THE PROPERTY OF THE	ŀ				FOREIG	N PATENT D	OCUMENTS	<u></u>			
YES T	-			DOCUMENT NUMBER				CLASS	SUBCLASS	TRANSL	ATION
OTHER DOCUMENTS (Including Author Title Date Partinent Pages 5ts.)	-							UDAGG	SUBCLASS	YES	NO
OTHER DOCUMENTS (Including Author Title Date Partinent Pages Tte.)	ŀ							 			•
OTHER DOCUMENTS (Including Author Title Date Partinent Pages 5to.)	ŀ							-			
OTHER DOCUMENTS (Including Author Title Date Partitions Pages 5to)	ŀ										
OTTER DOCOMENTS (including Additor, Tide, Date, Pertinent Pages, Etc.)				OTHER DOCUME	NTS (Inclu	ding Author, 1	Title, Date, Pertin	ent Pages	, Etc.)		
								· ·			
										·····	-
	-	EXAMI	 NER			ראת	F CONSIDERE) a/			
EXAMINER JOBLOGSON DATE CONSIDERED 2/21/02	- 1	*****		STAR I DO	$a \in A \cap$	5/1	- CONTOINE	7/5	1/1/2-	`	